ATTACHMENT 1

PERFORMANCE WORK STATEMENT (PWS)

(includes non-routine tasks)

for

REMEDIAL ACTION

at the

2012
OMAHA LEAD SITE

Operable Unit 2

OMAHA, NEBRASKA

April 2012

FIRM FIXED PRICE PERFORMANCE BASED
EXCAVATION/REPLACEMENT/RESTORATION

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1.0 GENERAL

This contract between the Environmental Protection Agency and successful bidder (Contractor) provides for soil remediation at assigned properties and additional work at assigned properties, as identified in this Performance Work Statement (PWS) and approved by the Contracting Officer Representative (COR) and for non-routine tasks, as assigned by EPA. The Contractor shall furnish all labor, materials, equipment, site management, office support, reporting tools, and incidental items necessary to meet the performance standards and accomplish the requirements of this PWS. The Contractor shall confine the work activities to the property locations defined by the PWS. The Contractor shall provide communication and coordination with property owners and shall plan and implement all activities in a manner that minimizes adverse impacts to property owners and the general community.

The Contractor shall be responsible for obtaining data, maintaining records, and preparing all reports and submissions required to satisfy PWS and other regulatory requirements including but not limited to the Comprehensive Environmental Restoration, Compensation and Liability Act (CERCLA), the Clean Water Act (CWA), the Clean Air Act (CAA), and the Toxic Substances Control Act (TSCA). The Contractor shall comply with all substantive requirements of applicable or relevant and appropriate federal and state environmental laws and regulations to meet the performance standards of this PWS.

Work accomplished for the duration of the contract will be consistent with the Final Record of Decision dated May 13, 2009 (See attachment D) and relevant EPA policies which are referenced herein (including OSWER 9285.7-50, Superfund Lead-Contaminated Residential Sites Handbook, August, 2003).

Remediation is being conducted pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), and National Contingency Plan (NCP) requirements. On-site actions conducted under CERCLA authority generally must comply with substantive requirements of Applicable or Relevant and Appropriate Requirements of federal and state environmental laws (ARARs). Permits, licenses, and other administrative requirements are generally not required for portions of work performed entirely on-site under CERCLA authority. For portions of work under this PWS that are not exempt from administrative requirements of ARARs, the Contractor shall be responsible for preparing and obtaining any required permits and licenses in addition to providing appropriate coordination and notification to State and local agencies as to the nature and timing of activities that will be occurring, as required.

2.0 PERFORMANCE CRITERIA AND REQUIREMENTS

2.1 Qualifications and Experience Requirements for Key Personnel

The experience and qualifications of key personnel are crucial to the timely and efficient completion of remedial activities at the Omaha Lead Site. For purposes of this PWS, key personnel are defined as the following: Project Manager, Site Superintendant, Site Coordination

Manager, Health & Safety Officer and Quality Assurance Manager. Resumes for all key personnel shall be included with the bid package. These resumes shall document experience and training relevant to the OLS project and provide at least 3 references with names and contact information. EPA approval of personnel nominated for these positions is required. Failure to identify personnel, for these key positions, meeting these qualifications and experience requirements will be determined to be non-responsive. No changes to key personnel shall be made within 180 days of contract award and thereafter changes shall not be made without EPA knowledge and written approval of the replacement person. EPA shall be given at least 5 working days to review the qualifications of any person who is nominated to replace previously approved Key Personnel.

Additionally, there are requirements that the Contractor's general workforce must meet. Copies of all Health and Safety training as well as any certifications needed to perform the job assigned must be maintained in a file at the field office. The EPA COR shall have the right to look at and review any and all of these certifications upon request.

Project Manager: The project manager shall have a minimum of 3 years of field experience with residential remediation or cleanup activities. At least 2 years of this experience shall have been spent in managing project activities. This experience shall include interfacing and communicating with federal, state, city and county officials and property owners and tenants. In addition to the practical experience described above, the project manager shall have documented specialized training in project management. All training and certifications shall be documented and copies provided to EPA upon contract award.

Site Superintendant: The site superintendant shall have a minimum of 3 years of field experience with residential remediation or cleanup activities. At least one year of that time shall have been spent scheduling, managing and supervising work crews. This person shall also have a demonstrated knowledge of how to locate property parcels that have no structure. The site superintendant shall have experience in interfacing and communicating with federal, state, city and county officials and property owners, and tenants. All training and certifications shall be documented and copies provided to EPA upon contract award.

Site Coordination Manager: The site coordination manager is responsible for contacting property owners and tenants, obtaining access agreements, negotiating restoration agreements, and obtaining close-out signatures from property owners. This person shall have a minimum of 3 years experience performing these types of duties for residential remediation or cleanup activities. This person shall have a demonstrated ability to work with and communicate with the citizens of urban areas that have been impacted by federal or private remedial or cleanup activities.

Health & Safety Manager: This person shall have training and a demonstrated background, at least 3 years practical experience, in performing health and safety operations on a Superfund site. This person or his representative should be present in Omaha to oversee, direct and update health and safety practices used by the Contractor. All training and certifications shall be documented and copies provided to EPA upon contract award.

Quality Assurance Manager: The quality assurance manager shall have at least 3 years of field experience using an XRF. This individual shall have training in quality assurance, the use of an XRF and an understanding of what and why quality assurance activities are performed. All training and certifications shall be documented and copies provided to EPA upon contract award.

Additionally, all Quality Assurance team members shall be trained and certified in the use of an XRF. Copies of training certificates for all Quality Assurance team members shall be provided to EPA at the beginning of each construction season and in the event that there is a change in personnel performing quality assurance tasks.

Remediation workers: All Contractor employees shall be either citizens of the United States or have a valid valid work permit or visa. The Contractor shall furnish to EPA documentation certifying that no illegal aliens are being employed for work efforts at the Omaha Lead Site. In addition, EPA is requiring that certified payrolls be provided to the COR to document that Davis Bacon wages are being paid. The EPA COR will conduct quarterly reviews, which will include employee interviews to verify that correct wages are being paid and that all employees are either U.S. citizens or aliens approved to work in the United States. This documentation shall be available to the EPA COR, at any time, upon request.

2.2 Performance Objective Statement

The objective of this contract is to protect human health and the environment by removing lead contaminated soils from residential properties. EPA has determined in the selected remedy for the Omaha Lead Site that protection of human health and the environment requires removing lead-contaminated soil from designated properties until an average residual concentration of less than 400 parts per million (ppm) is reached in the initial foot of excavation from the ground surface, or until a residual concentration of less than 1,200 ppm is reached at a depth greater than one foot, and restoring the affected properties to pre-removal conditions (removal of soils exceeding 400 ppm in the initial two feet of excavation is required for vegetable garden areas prior to restoration).

In the rare event that a residual concentration of less than 1,200 ppm cannot be achieved at depths greater than 1 foot, a visual barrier shall be placed between the lead-impacted soil and the clean backfill. The Contractor must receive approval from the EPA COR before placement of a visual barrier. The visual barrier should be a bright color, e.g., orange or fluorescent yellow, and be easily identified. The barrier should be constructed of a durable, long-lasting material that will not readily degrade over time. Satisfactory completion of the above stated tasks is required to achieve individual property close-outs with the respective owners and EPA.

EPA believes that the 1,200 ppm cleanup goal should be achievable at every property assigned under this contract. In the rare event that a residual soil concentration less than 1,200 ppm below 12 inches (less than 400 ppm to a depth of 24 inches below ground surface for vegetable gardens) cannot be achieved the Contractor will contact the EPA COR to evaluate the next steps. Stopping excavation and placement of a visual barrier can only be performed if the EPA COR concurs that the 1,200 ppm cleanup goal cannot be achieved and agrees to placement of the barrier.

This contract includes work at non-routine properties involving tasks related to soil remediation. All work at non-routine properties or non-routine tasks associated with regularly assigned properties under this contract, , will be assigned to the Contractor by the EPA COR on an ongoing basis as the needs I are identified by EPA.

The Contractor shall address all inquiries/concerns from EPA and other state and local regulatory agencies (e.g., organizing discussions concerning site response objectives and completion requirements, scheduling issues, performance and quality concerns) as required.

2.3 Performance Standards

This contract requires the remediation of residential properties when lead concentration measured in surface soils exceed 400 ppm in at least one non-foundation quadrant. For the purpose of this contract, remediation of properties involves three distinct phases:

1) pre-remedial actions;
2) remedial; and,
3) post-remedial actions.

Each of these phases has distinct requirements that are described in the following subsections.

This contract provides financial incentives which address work quality, property owner satisfaction and the use of local subcontractors/work force/goods and services. Details relating to those incentives are provided in the Quality Assurance Surveillance Plan (QASP) as part of this solicitation/contract.

There may be multiple milestones and/or deliverables for each performance objective (see Section 4.3 and Enclosure C, Project Deliverables). Final decisions regarding the adequacy of milestone and deliverable completion reside with the COR.

2.4 Pre-Remedial Action Requirements

Prior to beginning any remedial actions the Contractor shall complete, and obtain EPA approval of all plans identified in this PWS.

2.4.1 Plans

Prior to beginning any remedial actions, the Contractor shall complete, and obtain EPA approval of the following plans.

1. Project Management Plan (PMP) - See Section 4.1 of this PWS.

2. Quality Assurance Project Plan (QAPP) – See Section 4.2 of this PWS.

3. Field Sampling Plan (FSP) – See Section 4.2 of this PWS

4. Customer Satisfaction Plan (CSP) - See Section 4.11 of this PWS

5. Stormwater Run-Off Plan (SSDP) – See Section 4.4 of this PWS

Note: A Health and Safety Plan (HASP) is required by OSHA regulations. A copy of that plan is to be provided to the COR for acceptance prior to the initiation of work. (See Section 4.7).

2.4.2 Properties, Property Sketches, and Access Agreements

A list of pre-identified properties and sketches that are typical of properties requiring remediation for the base period of the contract will be provided by EPA and made available on-line and at the pre-bid conference. Property sketches for each property will identify the quadrants in each yard (exceeding the clean-up criteria), that require remediation, available analytical data, and the footprint of permanent structures.

Property sketches provided by EPA should be carefully reviewed and comparison of the identified and actual yard configuration performed. If an EPA provided sketch does not accurately identify the property or the contaminated portions of the properties, the Contractor shall notify the EPA immediately to have the sketch corrected to depict actual conditions. In such instances EPA may elect to assign the Contractor a substitute property under the provisions of this contract. Failure to identify a sketch error that is subsequently identified, could result in additional work for the Contractor at no additional charge to EPA.

The Contractor must perform necessary research to locate correctly each parcel assigned. Measurements shall be made as required to ensure that the correct property area is remediated. Should be COR question how the parcel was located, the Contractor shall provide and describe the methods use to identify and locate the parcel. EPA will not compensate the Contractor for remediating an incorrect parcel.

Analytical data for areas between the street curb and the sidewalk (the easement) may not in all cases be provided by EPA. In such cases, the Contractor shall sample the easement or any other areas where soil lead levels have not been adequately characterized. In certain instances, the Contractor may elect to perform additional characterization of an area previously sampled by EPA for the purpose of better defining the areas within a property requiring remediation. This additional characterization should not include an entire, previously unidentified quadrant. These instances may arise when a property owner desires to protect some portion of the property (e.g. an area with plantings or shrubs) from disturbance during soil remediation. Past sampling efforts within portions of properties that have been disturbed such as landscaped or planted areas, has demonstrated that surface soil lead levels in disturbed areas may be less than the overall average soil lead concentration across a quadrant or drip zone. Sampling and analytical protocols for this additional characterization sampling must be included in the Contractor's Quality Assurance Project Plan and Field Sampling Plan and can only be performed with advance COR concurrence. This additional characterization may be determined to be necessary when the original property sketch depicting previous sampling results is unclear or in other unusual circumstances. Any such additional characterization shall be at the Contractor's expense. Each sample shall consist of multiple aliquots equally spaced within the area of interest consistent with

the Lead-Contaminated Residential Sites Handbook. The aliquots shall be thoroughly mixed prior to XRF analysis. In accordance with sampling protocols described in the Superfund Lead Contaminated Residential Sites Handbook, three consecutive ex-situ XRF readings shall be taken. The three XRF confirmation readings must be ± 10% of the mean of the three readings if any of the three individual XRF results exceed the soil lead cleanup criteria. If all three XRF readings are below 400 ppm in samples collected from the upper foot, or less than 1,200 ppm in samples collected at depths greater than one foot, agreement of samples within 10% of the mean is not required.

The Contractor shall be responsible for verifying the accuracy of each property sketch provided by EPA. Any additional characterization that is performed by the Contractor shall be in accordance with the Contractor's EPA-approved Quality Assurance Project Plan and Field Sampling Plan and thoroughly documented in the individual property file submitted to the COR.

The Contractor shall verify property ownership immediately prior to executing any access agreements. The Douglas County Assessor's Office and website (http://www.dcassessor.org/) are an effective way of verifying ownership and parcel boundary lines. The location and boundaries of vacant lots can be difficult. Incorrectly identifying, excavating and restoring a parcel will result in non-payment for that parcel. The Contractor shall take all effort necessary to ensure that the correct property parcel is remediated.

Prior to beginning any remedial actions, the Contractor shall obtain a signed access agreement permitting the Contractor to perform remedial activities at a property. These access agreements may be more difficult to obtain during this contract period since the pool of properties requiring remediation is getting smaller. The Contractor should allow for more time and resources to obtain access agreements; documentation of all attempts to obtain access will be required. Only in special circumstances will replacement properties be issued. Signed refusals and well-documented and investigated efforts for unsuccessfully locating a property owner will be required before providing a substitution property will be considered. In some situations the Contractor may have to have a U.S. (or EPA) Marshall present during the remediation activities. This will be required if remediation is ordered by EPA and a warrant is issued by the U.S. District Court.

The Contractor shall continue to pursue access from the verified property owner and shall document all efforts by written record. This efforts shall continue until access is obtained, a written refusal is provided or until notifaied by the COR to cease attempts.Once the access agreement is obtained, the Contractor shall place the original access agreement in the individual property file. The EPA COR shall be notified of all access denials where the property owner is a landlord. Access orders will be needed

The EPA has the authority to request and review any and all documentation and working papers, including access agreements at any point during the contract performance.

If the property owner declines to sign the access agreement for any reason, the Contractor shall notify the COR. If the COR is unable to secure access, the EPA will make every effort to provide the Contractor with the address of a substitute property within 5 working days, per Section 3.0. Property Substitution Provision.

2.4.2.1 Non-Routine Property Access Agreements and/or Denials

EPA may assign the contractor the task of obtaining access and/or written denials (if access is unsuccessful) to properties, not on the list for remediation. Typically, these properties have had access denied or contact with property owners was unsuccessful. Access agreements obtained will be for sampling and/or remediation.

2.4.3 Pre-Excavation Agreements and Digital Video and/or Digital Photographs

For all properties identified for remediation, the Contractor shall document any and all pre-excavation agreements made with individual property owners. For example, these agreements may document areas to be left undisturbed or areas requiring specific restoration actions. The Contractor is responsible for full compliance with these agreements. During the pre-excavation phase, the property owner shall be advised that any surface contamination that is not remediated poses a potential health concern and will be documented in records provided to EPA and that the presence of any areas exceeding cleanup criteria that are excluded from remediation will be documented in publicly-available records. Additionally, contamination left behind will make it impossible to remove the property from the National Priorities List (NPL); remaining on the NPL may adversely impact the value of real estate. If the property owner insists that areas exceeding 400 ppm not be disturbed, the Contractor will immediately notify the COR for appropriate follow-up with the homeowner. In these instances, additional soil characterization by the Contractor may be approved by the EPA COR to determine whether soil lead levels in specific areas of interest are less than 400 ppm and can be excluded from remediation efforts. Alternatively, a property substitution may be provided to the Contractor in instances where agreement cannot be reached with the property owner.

In addition to documenting pre-excavation agreements, the Contractor shall use digital video and/or photography equipment to record the exterior condition of each property prior to commencing remediation or additional sampling activities. These videos and/or photographs shall include portions of adjoining properties if remediation will require access to these other properties. These situations may arise when access to adjoining properties is needed to move heavy equipment into position for remediation. All video and/or photographs shall be of sufficient quality to identify all pertinent property features and conditions. Video and/or photographs shall include all existing roadways, sidewalks, curbs, retaining walls, driveways, buildings, above-ground utilities, landscaping, fencing, close-ups of cracks or structural imperfections, existing damage and other physical features located within the area impacted by remedial activities. Indoor video and/or photographs may be considered where pre-existing conditions warrant, for instance to document existing foundation disrepair or other vulnerable structural elements.

The Contractor shall maintain any pre-excavation agreements and the digital video and/or photographic clips in individual property files and shall include these materials with the property file provided to the COR. The COR has the authority to request and review any and all property sketches and digital video and/or photographs at any time during contract performance.

2.4.4 Soil Characterization

The Contractor shall use the property sketch as a guide in determining which areas of the property shall be excavated. Any questions regarding the accuracy of the EPA provided sketch shall be brought to the attention of the COR. The sketch will be reviewed and changes made as necessary. Failure to notify the COR of sketch inaccuracies and subsequently remediating the wrong areas may result in no compensation for the work performed. The Contractor shall be responsible for characterizing the soil in the easement at every property where that data does not exist and any other area of the property that is not characterized for lead contamination. The Contractor shall collect and compile all required analytical data to support remediation decisions. The EPA COR shall be present during all sampling and analysis procedures where changes result. Results of surface soil characterization performed by Contractor in any easement or other previously un-sampled area shall be documented and included in the individual property file. Post-excavation sampling results shall be recorded on an "as-built sketch", and included in the individual property file.

Hard surfaces, such as concrete, asphalt or brick that are considered a cap will not require characterization of soil lead levels. Characterization of soil lead levels is also not required in gravel driveways or other gravel areas where there is **no visible exposed soil**, or in areas where there exists a quality weed barrier covered with at least 3 inches of mulch. All other identified areas where soil lead levels exceed EPA cleanup criteria will either be excavated and demonstrated to meet the clean-up criteria, or identified as areas exceeding cleanup criteria where remediation was not performed (for areas greater than 4 square feet) in the final "as-built" sketch".

2.5 Remedial Action Requirements

The extent of yard preparation (e.g., removal of plantings, number of items to be relocated, removal of shrubs, etc.) may vary somewhat in accordance with pre-excavation agreements with the property owner. Inherent in any type of remediation effort that involves a great number of affected property owners, is some level of uncertainty regarding the definitive amount of actual restoration work needed to satisfactorily achieve property owner satisfaction and property close-out.

Properties will be restored to pre-existing conditions to the extent possible. Plants and other landscaping features will be restored to pre-excavation conditions as reasonably possible (items and plantings that are available and can be purchased at local nurseries, stores, etc.). Careful excavation of soil around large tree roots will be preferred to removal and replacement of large trees. Required replacement plants, shrubs, and other items that cumulatively exceed $500 per property will be invoiced to EPA as a non-routine expense under appropriate CLIN).

Many of the properties within the Final Focus Area have retaining walls, foundations, porch supports, etc. in varying degrees of repair. The Contractor shall notify the COR of all structural elements (retaining walls, foundations, porch supports, etc.) judged to be in a state of failure or near failure. The COR shall concur that it is prudent to retain a professional structural engineer, licensed by the State of Nebraska, to provide analysis of each structural element. The purpose of the structural analysis is to better determine the condition of the structural element and whether or not remedial activities might worsen the situation. The property owner will be made aware of

the structural analysis to limit EPA's liability. The Contractor will not pay for the costs associated with damage claims made by property owners where the COR has approved structural analyses as part of the fixed price cost. These damage costs and the costs of the Nebraska licensed professional structural engineer shall be invoiced to EPA as a non-routine expense under the appropriate CLIN.

Other non-routine costs that might be encountered during the course of this contract include the following: consultation with county extension agents regarding soil, tree damage, etc.; scraping and sodding non-qualifying quadrants (if that is the only means of obtaining access); unusual conditions (i.e., historic building, items not routinely encountered during the excavation, backfill and sodding of a residential property –the EPA COR will be consulted about whether or not a specific task should be considered non-routine. Approval from the COR is required prior to performance of any non-routine items or incurring any non-routine costs).

In the following specific PWS sub-sections, the EPA has described the most common and likely approach to be followed by the Contractor, but the EPA has not specified an approach for every scenario (e.g., types/sizes of trees that must be removed, etc.) that might be encountered. Providing a protocol for every scenario would be counter to the EPA's goal of affording flexibility to the Contractor to achieve property closeout in the most effective manner that is also satisfactory to the individual property owner. In discussing and achieving agreements with property owners regarding yard preparation and remedial and post-remedial actions, the Contractor shall use, and provide to the property owner if necessary, the following general principles:

1. The goal of this CERCLA effort is to remove soil that poses a health risk, **NOT** to enhance or improve any property.
2. Decisions (e.g., remove a tree/stump or dig around it, etc.) are based on actions that EPA determines are necessary to protect human health and the environment.

2.5.1 Yard Preparation

The Contractor shall provide for temporary relocation of all items (e.g., swing sets, lawn items, etc.) necessary for the accomplishment of excavation. For larger items (e.g., vehicles, boats, large appliances, etc.), the Contractor shall encourage the property owner to move/ relocate/dispose of those items themselves. If such large items are not removed in a timely manner by the property owner, the Contractor shall notify the COR for assistance. The COR will determine the next steps necessary to facilitate the removal of the items or inform the Contractor that it is acceptable to proceed (smaller items of manageable size will be temporarily removed by the Contractor if the property owner lacks the willingness or capability of performing the work themselves and then moved items back to their original location upon completion of the work). The Contractor may, with the homeowner's consent, clear and dispose of, or relocate limited amounts of bushes, shrubs, and small trees within the excavation area. Permanent structures (house features, additions, patios, porches, decks, sidewalks, concrete, asphalt driveways and sidewalks) shall not be removed. Removal of large trees or large tree stumps or concrete pads is generally not necessary for accomplishment of the remedial action objectives. However, removal can be considered, by the Contractor, on a case-by-case basis using the guidelines provided in Section 2.4.

2.5.2 Utilities

The Contractor shall be responsible for contacting utility companies and having all utilities field located prior to excavation activities. Documentation of utility location shall be provided in the property folder. In the event that damage occurs to utilities, the Contractor shall repair or replace such utilities at no additional expense to the EPA.

2.5.3 Excavation and Confirmation Sampling

The objective of soil remediation is to remove and replace soil containing lead at concentrations that present an unacceptable risk to human health. The Contractor shall not be responsible for removing soil contaminated with any chemical substance other than lead. If during excavation, the Contractor identifies soil that has been contaminated by any other substance (e.g., fuel oil, solvents, etc.), the Contractor shall notify the COR immediately. For example, an old fuel oil tank may be present immediately below the ground surface in an impacted area. If the situation occurs, the COR shall be notified immediately.

Excavations are not required to be of uniform depth across the surface area. Depths of excavations may vary across the excavation footprint. Excavation within each quadrant or other defined area will proceed until the Contractor demonstrates in accordance with the procedures in the Superfund Lead-Contaminated Residential Sites Handbook and Site wide Sampling and Analysis Plan for the Omaha Lead Site that the average lead concentration across the exposed surface of the excavation meets applicable cleanup criteria. All portions of areas where EPA has identified surface soil lead levels exceeding 400 ppm will require soil removal to a minimum depth of 4 inches to achieve cleanup goals, except in rare cases where additional characterization has been approved by the COR and has obviated the need for remediation. In addition, if a deck extends away from a building in an identified lead-contaminated area, the soil underneath the deck that can be accessed shall be excavated and replaced.

If the Contractor observes what appears to be a mistake in the assignment of a property, or if there is a discrepancy observed between the actual property and the EPA-provided sketch, the Contractor will notify the COR to rectify any such discrepancy. Examples would include situations where actual dimensions and property features are inconsistent with the sketch, or if it appears that some portion of the property was not sampled or if there are changed conditions, (i.e., house identified on sketch no longer exists, avacant lot now has a structure, parcel has been converted to a parking area, etc.). In such cases, assignment of a substitute property by EPA may be elected at EPA's discretion if the discrepancy cannot be resolved between the COR and the Contractor.

Quadrants and Easements at EBLs, High Child-Impact Areas and Highly Contaminated Properties

In areas that exceed the ROD action levels, excavation shall be at least 4 inches in depth and generally proceed until reaching an average residual concentration of 400 ppm at the exposed surface of the excavation within the initial foot from the original surface (surface soils), or until reaching an average residual concentration of less than 1,200 ppm at depths greater than one foot

(subsurface soils). If residual lead concentrations of less than 1,200 ppm cannot be achieved at depths greater than 1 foot, the COR may approve placement of a visual barrier between the lead-impacted soil and the clean backfill. It is necessary to get the COR's concurrence to stop excavation and install the visual barrier when concentrations below 1,200 ppm below one foot cannot be achieved through conventional excavation procedures (See Section 2.1).

Quadrants Containing Vegetable Gardens

The Contractor shall excavate soil in vegetable garden areas until an average lead concentration of below 400 mg/kg is reached in the initial two feet from the surface. The minimum excavation depth shall be 4 inches. If the average lead concentration at a depth greater than 24 inches is less than 1,200 ppm, excavation may be stopped. However, if lead exceeds 1,200 ppm below 24 inches the Contractor must continue excavation until a residual soil lead level less than 1,200 ppm is reached, or contact the COR EPA representative to evaluate the next steps. A visual barrier may be placed over soil exceeding 1,200 ppm before backfilling the excavation, if approved by the EPA COR. The Contractor must complete a concurrence form signed by the EPA COR before placing a visual barrier at a property. EPA believes that visual barriers will be necessary only on rare occasions (See Section 2.1).

House Drip Zones

Airborne lead particulates released by the sources identified in Attachment A of this PWS were deposited or impinged on the walls and roofs of many Omaha structures. Mechanisms such as storm water runoff carried lead contamination from these surfaces into the soils immediately adjacent to the structure foundations. In some instances, this has resulted in increased lead concentrations in drip zones presenting an unacceptable health risk. In addition, the presence of deteriorated lead-based paint on exterior surfaces may have contributed some undefined amount to concentrations of lead detected in the drip zone. The Contractor shall excavate the drip zone around the house or structure to a minimum depth of 4 inches or until reaching cleanup criteria of less than 400 ppm in the initial foot from the surface, and less than 1,200 ppm at depths greater than 1 foot (two feet in vegetable gardens). If residual lead concentrations of less than 1,200 ppm cannot be achieved at depths greater than 1 foot, the Contractor must contact an EPA representative to evaluate the next steps. It is necessary to get EPA concurrence before a visual barrier can be placed between the lead-impacted soil and the clean backfill (See Section 2.1).

The Superfund Lead Contaminated Residential Sites Handbook generally defines drip zones as the areas in the yard typically located within six to thirty inches from the exterior walls of the houses or structures that receive the majority of the storm water runoff from roofs and exterior walls. Soil lead levels in drip zones can also be impacted by loose and flaking lead-based paint particles that can potentially fall to the ground and mix with soil over time (if the exterior surface has lead-based paint present). Drip zones vary from structure to structure and can only be identified through actual field inspection observing dimensions of soffits, eave systems and other components of the structure. It shall be the Contractor's responsibility to define the width of the drip zone from the foundation wall, if greater than thirty (30) inches. In some cases, drip zones may not be depicted on the EPA-provided property sketch. If a property has a drip zone that has accessible lead contaminated soil (not a defined cap), the drip zone will be excavated a minimum of 30 inches away from the foundation.

The Contractor shall be required to excavate those portions of a drip zone with exposed soil that exceeds OLS cleanup criteria for lead. In some limited cases, additional characterization may be performed with COR concurrence to better define the portion(s) of the drip zone actually requiring remediation. Excavation of drip zone areas is generally performed by hand to avoid any damage, or perception of possible damage, by the use of heavy equipment.

Field XRF measurements to guide excavation/collection of confirmation samples.

The Contractor shall use in-situ XRF readings to obtain sample results for the purpose of decision-making regarding the need for additional excavation and/or meeting the clean-up levels. Once excavation has been performed to a depth that the Contractor believes will achieve soil lead cleanup criteria, confirmation samples shall be obtained. Confirmation samples demonstrating that soil lead cleanup criteria have been achieved are required prior to backfilling and restoring remediated areas.

Confirmation samples shall be collected from the exposed surface of each excavated area to verify that cleanup criteria have been achieved. The confirmation samples shall extend from the bottom of the excavation to a depth of 6 inches below the excavation. Each sample shall consist of five (four for drip zone) aliquots equally spaced within the quadrant, play area, garden zone, or drip zone. The aliquots shall be thoroughly mixed and homogenized prior to XRF analysis. Use of a slide hammer facilitates driving the sampling device into the exposed soil surface to a depth of 6 inches[1] below the bottom of the excavation.

Confirmation sampling results will be calculated as the average of three consecutive ex-situ XRF readings. Sampling and analytical protocols shall be documented in the Contractor Quality Assurance Project Plan and Field Sampling Plan and must be consistent with protocols described in the Superfund Lead Contaminated Residential Sites Handbook and the Final Site wide Sampling and Analysis Plan for the Omaha Lead Site. If any of the three readings exceed soil cleanup criteria (soil lead levels greater than 400 ppm in the upper foot of soil from the original surface or exceeding 1,200 ppm at depths greater than one foot or greater than 400 ppm to a depth of 24 inches in garden zones), the three XRF confirmation readings must be $\pm$ 10% of the mean of the three readings. If each of the three individual readings are less than the XRF detection limit, then 10% agreement between readings is not required.

Exception to excavation of drip zone soils exceeding 1,200 mg/kg lead.

The maximum depth of drip zone excavations will be limited such that they do not jeopardize the structural integrity of the house (or other structure) foundations. This determination will be made in the field on a case-by-case basis by agreement between the Contractor and the COR. If it is determined that additional excavation will jeopardize the structural integrity of a foundation, the Contractor will not be required to perform additional soil excavation even if subsurface soils averaging more than 1,200 mg/kg lead remain at a depth greater than one foot. If this situation occurs, i.e., average lead concentrations of less than 1,200 ppm cannot be achieved at depths greater than 1 foot, a visual barrier shall be placed between the lead-impacted soil and the clean

[1] Core samples are typically collected using a 7/8 inch by 21 inch soil probe

backfill. The Contractor must have EPA concurrence before placing a visual barrier at a property. See Section 2.1. During excavation, angling away from the foundation after being at least 4 inches below the ground surface to remove additional contaminated soils is acceptable, if needed, to protect structural integrity. However, this situation shall be reported to the COR prior to backfill of the drip zone and shall be documented by the Contractor in the records developed for each property to which it applies. Documentation shall include a discussion of the circumstances and sketches, dimensions, specific locations, and other information that would allow the affected area to be described and precisely located.

EPA Quality Assurance Sampling

The Contractor shall notify EPA that they believe soil lead cleanup criteria has been achieved for all remediated areas prior to backfilling in order to provide EPA with the opportunity to perform quality assurance (QA) confirmatory sampling. Selection of properties to perform EPA confirmatory QA sampling will be at EPA discretion. EPA anticipates performing QA confirmatory sampling for at least ten percent of properties remediated by the Contractor. EPA will designate a QA point-of-contact(s) that will be available to receive Contractor notification of their intent to backfill excavated areas. The EPA QA point-of–contact will verbally inform the Contractor at the time that Contractor notification is provided, whether the identified property(ies) will be sampled by EPA for quality assurance purposes. If EPA elects not to perform QA confirmatory sampling, Contractor may proceed with backfilling of excavated areas. If EPA elects to perform QA confirmatory sampling at the identified property(ies), the Contractor will allow up to 24 hours for EPA to conduct such sampling and notify Contractor of analytical results before backfilling excavated areas. EPA shall notify Contractor of QA confirmatory sampling results immediately upon completion of XRF analysis. If EPA does not notify Contractor of QA confirmatory sampling results within 24 hours of Contractor notification, backfilling may proceed by Contractor. If EPA notifies Contractor that QA confirmatory data verify that cleanup criteria have been achieved for all remediated areas, backfilling may proceed. If EPA QA confirmatory sampling indicates residual lead levels in excavated areas that do not meet cleanup criteria, EPA will require additional excavation or otherwise resolve discrepancy with the Contractor. EPA will be responsible for management of EPA-generated QA confirmatory sampling data under this contract.

Record Keeping

Upon award of the contract, a database developed in Microsoft Access 2003 with assigned cleanup property information will be provided to the Contractor. It will be the Contractor's responsibility to possess a valid copy of Microsoft Access 2003 or 2007, and to maintain this database with excavation information including event information (i.e. access obtained, excavation date, date backfilled, cubic yards removed and cubic yards of clean backfill, close-out dates, etc.) and soil confirmation sampling information. The Contractor will also maintain data on sites where soil lead concentrations above 400 mg/kg lead are left at a depth of 12 inches or less, or where soil lead concentrations above 1,200 mg/kg are left at depths greater than 12 inches (above 400 mg/kg at a depth of 24 inches for vegetable gardens), and visual barriers are placed at depth. Any such data shall be entered by Contractor into the Access database provided. An automated process for sending data to EPA (to an FTP site) and receiving updates from EPA (through e-mail) has been developed for the Access application. It is the Contractor's

responsibility to ensure cleanup lists and property status align with the data in the EPA database. Discrepancies should be reported to EPA and reconciled as quickly as possible. Training and support of this application will be provided by EPA staff.

The information from this database will be used to monitor the progress of the property's clean-up and to track specific areas of individual properties where soil with elevated levels of lead are left in place (greater than 4 square feet). This information will be integrated into the Oracle-based Omaha Lead Site data base maintained at EPA Region 7. The Contractor is required to send nightly updates to EPA's database using the provided FTP upload process which requires an internet connection. Data for work performed one day should be received by EPA by COB the next work day. Property substitutions are dependent upon the accuracy of the Contractor's database. The omission of updates to EPA could result in the delay of the Contractor receiving substitute properties.

Dust Monitoring

In some cases, the Contractor may need to employ dust suppression and limited air monitoring during soil excavation, soil staging operations, backfilling, and grading activities. The Contractor shall ensure that a means of dust suppression is available at all times. Air monitoring and sampling may include a combination of OSHA-type personal sampling for lead, perimeter air sampling around project areas with the greatest potential for dust generation, and real-time particulate monitoring at selected project areas. The Contractor shall describe, in the Project Management Plan and Health and Safety Plan, situations when dust suppression activities and air sampling/monitoring activities will be employed. The Field Sampling Plan shall identify all air sampling and monitoring equipment to be used, in addition to all associated analytical methods. The Contractor shall be able to demonstrate and shall document that off-site properties and receptors are not adversely affected by airborne contaminants or particulates.

Additional Information

The Contractor shall excavate soil without damaging houses, sidewalks, curbs, driveways, utilities, and other items at each property and shall exercise caution when excavating adjacent to permanent structures (houses, patios, porches, decks, sidewalks, retaining walls, and concrete/asphalt driveways). In all cases, if the Contractor damages any public sidewalks during excavations, the Contractor shall be responsible for repairing/replacing the damaged sidewalks, in accordance with the City of Omaha's code. Damage to privately owned sidewalks (e.g., sidewalks leading to the house entrances) and subsequent repairs shall be the responsibility of Contractor and handled on a case-by-case basis with the property owner by the Contractor. The Contractor shall make reasonable efforts to resolve property owner concerns about property damage to the property owner's satisfaction.

The Contractor shall ensure safe access for all residents to and from their houses throughout the remediation process and shall take all necessary precautions to reduce the production and spread of soil dust. When necessary, construction fencing shall be used along sidewalks and driveways to ensure safe access for residents and the public during construction. Excavation of soil beneath permanent structures (houses, additions, patios, porches, decks, sidewalks, concrete/asphalt driveways) shall not be performed in cases where these areas are inaccessible. Excavation around

trees, bushes and shrubs to be left in-place, in accordance with the property owners' request, shall be performed in a manner that will leave the root bulb intact and avoid damage to tree roots.

Excavation video and/or photograph shall document the extent and depth of excavation. These video or digital photographs may assist the Contractor in addressing any damage claims that may be filed by a property owner.

In the FSP, the Contractor shall describe in detail the confirmation sampling and soil concentration averaging protocol(s) they will employ to produce defensible data and verify that the soil cleanup goal has been met at each property. These techniques can be employed only after obtaining COR approval of the FSP. Soil sampling performed under this contract will be consistent with the EPA Superfund Lead-Contaminated Residential Sites Handbook (OSWER 9285.7-50, August 2003) and the Site wide Sampling and Analysis Plan for the Omaha Lead Site.

Confirmation sampling results (verification of post-remediation concentrations) and QA/QC data (e.g. locations of samples, numbers of samples, and QA/QC sampling locations) shall be maintained by the Contractor in individual property files. The COR has the authority to inspect analytical data, sampling locations, and sampling methodology at any time to verify that the soil cleanup goals were met. If XRF techniques are used, the QAPP shall address how XRF data accuracy will be developed and maintained, consistent with the Superfund Lead-Contaminated Residential Sites Handbook and Site wide Sampling and Analysis Plan for the Omaha Lead Site.

2.5.4 Transportation and Disposal

The Contractor shall be responsible for maintaining a suitable location for temporary stockpiling of excavated soil (staging area). Prior to establishing a temporary staging area at any location other than the Missouri River Wastewater Treatment Plant, the Contractor will coordinate with EPA to determine appropriate public notification/participation opportunities that must be provided prior to the operation of any such temporary facility. Operation of a temporary staging area may commence only after EPA COR concurrence that appropriate public notification/ participation opportunities have been provided, and that public comments received have been considered and addressed. Areas proposed by Contractor for staging or other operations will be at Contractor's expense.

Individual stockpiles at a temporary staging area will be sampled prior to transport and disposal to demonstrate compliance with applicable land disposal restrictions. Appropriate notification and public participation procedures shall be followed for state and local jurisdictions prior to shipping excavated soils to a facility for final management. The Contractor will operate the staging area in a manner that controls the potential for off-site migration of lead-contaminated soil and shall perform air monitoring in accordance with procedures provided in the Field Sampling Plan to verify that a significant airborne release of lead-contaminated soils into surrounding areas does not occur.

A Stormwater Run-Off Plan shall be developed and followed that identifies how potentially lead-impacted storm runoff will be handled. The Stormwater Run-Off Plan will conform to the

requirements set forth in the Clean Water Act. Dust suppression or containment shall be implemented for stockpiled materials, as necessary, to prevent the generation of blowing dust. These same precautions shall also apply to stockpiles of clean backfill soil. Direct hauling of lead contaminated soils from remediated properties to a disposal facility is acceptable under certain circumstances with prior approval by the EPA COR; however, the Contractor must meet requirements specified in the Quality Assurance Project Plan (QAPP) that demonstrates compliance with land disposal restrictions prior to transport.

The Contractor shall be responsible for disposing of all excavated soil at a fully licensed and appropriate RCRA Subtitle D waste disposal facility, or other EPA approved location, and shall also notify the COR of any and all facilities to be used for the final management of excavated soils. Alternate disposal locations/fill areas may be used ONLY if the EPA reviews and approves the use of that disposal area. The disposal location shall be identified in the Project Management Plan. The Contractor shall also be responsible for any associated tipping fees and for properly maintaining any analytical soil data used for profiling soil. The Contractor should be aware that in the past, soil removed from similar Omaha Lead Site properties has contained lead concentrations that are below the concentrations that would require the soil to be managed as a RCRA hazardous waste. However, the EPA can not guarantee that this will be the case in future remedial actions. Also, the Contractor may be required by the disposal facility to determine the concentration of other chemical substances, such as arsenic, prior to disposal. If the disposal location changes after contract award, COR approval shall be obtained prior to using any new disposal location.

Spillage associated with the loading of the trucks shall be immediately cleaned up and loaded for transport by the Contractor. Areas where spilled materials are removed will be swept "broom-clean" prior to departing the area. Water or other rinsing agents will not be used to aid in the removal of spilled material. The Contractor shall ensure that roadways, alleys, and other public access areas are not "tracked" with soil from the excavation areas. The Contractor shall be responsible for any damage to public roadways and any other areas damaged by hauling or excavation activities. All trucks hauling contaminated soil shall be covered at all times during transport on public roadways. Any trucks or other equipment utilized in a dual purpose role of handling contaminated soil then clean backfill soil will be completely swept "broom clean" before a switched role is allowed.

2.6 Post-Remedial Actions

After removing soil from select areas, the Contractor shall complete the following post-remedial actions.

2.6.1 Backfill Quality and Grading

The Contractor shall be responsible for locating suitable backfill sources. However, the Contractor shall not use any soil from the **Loess Hills Soil Conservation Area** for backfilling. All excavations shall be backfilled with non-contaminated topsoil from off-site sources with the following characteristics:

1. Contains less than 150 mg/kg average lead;

2. Contains less than 22 mg/kg average arsenic;
3. Contains less than 25 mg/kg average cadmium;
4. Contains no contaminants at concentrations that pose a risk to human health and the environment; and,
5. Sufficient quality to grow grass and sustain vegetable gardens (as verified by appropriate nutrient testing, including at a a minimum 5% organic matter).
6. Contains insignificant amounts of debris (tree roots, rocks, etc.).

The Contractor may occasionally need to discuss backfill quality issues with concerned property owners, and therefore should be fully prepared to verify/document the quality of backfill used on short notice. Soil testing results/data (contaminant and nutrient) from the Contractor are required every 5,000 cubic yards to assess the quality of backfill being used. The COR shall be provided this data and have an opportunity to review and make decisions regarding the acceptability of the proposed backfill material. The COR has the authority to stop backfilling operations at any point if the COR determines that the backfill is not of sufficient quality. The Contractor shall not be allowed consideration for work stoppage due to their use of low quality backfill.

The Contractor shall place backfill with an appropriate level of compaction that promotes sod growth without unacceptable future settlement. Placement of backfill shall be accomplished in a manner that will provide positive drainage away from all houses and structures – this can typically be accomplished by raising the drip zone slightly to ensure that runoff flows away from the foundation of the structure. However, the Contractor shall not be responsible for correcting significant existing drainage problems through extensive grading and backfilling. Prior to placing sod, gravel, or mulch, the surface of the backfill shall be appropriately finished to ensure a quality final landscaping product. The final grade shall be brought to that of the existing terrain.

2.6.2 Landscaping

Due to emphasis placed on homeowner/resident satisfaction in this PWS, landscaping is a key component to the successful accomplishment of property closeouts. The Contractor shall ensure quality landscaping for each remediated property and shall provide materials, equipment and labor necessary such that restoration activities result in final ground surfaces that are smooth and allow for adequate drainage with no ponding of water. Lawns shall be reestablished through the placement of quality sod with biodegradable backing. Reasonable efforts shall be made by the Contractor to ensure that the sod backing is under the sod and does not stick out. The Contractor shall make a reasonable attempt to replace sod with the same type that was present prior to the excavation. Seeding, hydro-seeding, or alternate means of establishing grass cover will not be permitted at any property unless specifically requested by the property owner and documented in the restoration agreement or other agreement included in the property folder. Restoration of vegetable gardens shall be performed by placing topsoil and amendments as necessary to restore gardens to approximate pre-excavation quality. Property owners shall be compensated for any removed or seriously damaged plantings.

The Contractor shall describe in the QAPP the protocols and methods (e.g., watering, fertilizer application) that will be employed to ensure quality landscaping and use of quality sod, including analytical results assuring that the sod does not contain contaminants of concern as listed in Section 2.6.1. The Contractor shall be responsible for watering and taking other measures

necessary to ensure proper lawn growth and root development for a period of thirty days after sod placement – this period will be referred to as a "sod growth guarantee". The sod growth guarantee will exclude the winter season in Omaha, which is considered under this contract to last from December 1st to March 15th. It is anticipated that sod placed during the winter should establish itself during the spring months without additional management requirements.

2.6.3 Replacement of Removed or Damaged Items and Digital Video and/or Digital Photograph

The Contractor is not required to replace items removed at the discretion of the property owner. Properties shall be restored to pre-excavation conditions including landscaping and the occasional replacement of plants and shrubs that are located in contaminated quadrants, drip zones, play areas and gardens where the property owner chooses to request a replacement. The Contractor shall restore such areas with sod, gravel, or mulch per a pre-excavation agreement made with the individual property owner. Upon completion of the excavation, backfilling, and restoration, the Contractor shall be responsible for returning the lawn to pre-excavation conditions (e.g., re-install fences, gates, sprinkler systems, swing sets, etc.). If the items are not salvageable after removal (e.g., broken fence posts or fences) the Contractor shall purchase comparable items and reinstall the items per an agreement with the property owner. Gravel driveways that are excavated shall be restored, however, the COR shall be consulted on any gravel driveway issues that arise (current city codes do not allow construction of gravel driveways). The Contractor shall document that the property owner was provided and acknowledged the information. This documentation shall consist of a form signed by the property owner and counter signed by the project manager or site superintendant and included in the final property folder.

After replacing all items and completing restoration efforts, the Contractor shall digitally, video and/or photographically document the same areas that had been previously recorded. The video clip and/or digital photography shall be of sufficient quality to allow a detailed review to identify new or pre-existing damage and shall be included in each individual property file.

2.6.4 Post-Excavation Walkthrough and Final Property Closeout Inspection

After completing tasks listed in 2.6.1 to 2.6.3, the Contractor shall make all reasonable efforts to perform a post-excavation walkthrough with the property owner to discuss completed tasks and, in general, assess all restoration actions. In the event that a face-to-face discussion cannot be arranged, a telephone conversation may be conducted. Following the post-excavation walk-through or discussion, the Contractor shall attempt to obtain the property owner's signature on a Contractor-developed form that acknowledges that all restoration work was completed appropriately and no damage is evident. During the walkthroughs, the Contractor shall provide the property owner with the EPA-provided Property Owner Satisfaction Survey (see Section 2.7). On occasion, the Contractor may need to show the property owner the pre-excavation video and/or photographs to resolve restoration or property damage issues.

In all situations (whether or not the property owner signatures are obtained), the Contractor shall schedule a final property closeout inspection with the COR. The final property closeout inspection may be scheduled at the same time the post-excavation walk-through is scheduled. In

those situations where a joint walk-through and inspection is not performed, the Contractor shall schedule the final inspection with the COR within 10 work days of completing post-remedial actions for the property. All property damage that has been caused by the Contractor must be repaired before the remedial action is considered complete or the close-out is performed. During the final inspection, the following activities, at a minimum, shall take place:

1. The Contractor shall show the COR the forms signed by the property-owner including access agreement, restoration agreement, any changes made to the agreement, if applicable, forms acknowledging that gravel driveways are not to code, and close-out form (if available) and request EPA concurrence on the individual property closeout;
2. The COR will inspect the completed, remediation effort;
3. If the performance standards for project completion are met, the COR will approve the Contractor's property closeout request;

OR

If additional work is required, the property closeout request will not be granted until the work is completed satisfactorily, at which point the COR, will conduct another inspection, prior to approving the property closeout request.

NOTE: Property closeouts shall be achieved for all properties before the respective milestone payment will be approved by the COR.

2.7 Property Owner Satisfaction Survey

Because property owner satisfaction is one of the key objectives of this remedial action, EPA will request property owners complete a brief "Property Owner Satisfaction Survey." This survey captures the level of property-owner satisfaction achieved after all post-remedial actions are completed. Surveys will be provided to the property owners by the Contractor along with stamped envelopes addressed to the COR at the EPA Regional Office. The results of the surveys will be compiled at the end of each contract option and will be used to determine the eligibility for incentive payment.

As mentioned in Section 2.6.4, the Contractor shall either hand deliver the survey to the property owner during the post-excavation walkthrough or use another means to deliver the survey. The contractor will be allowed to view the completed and returned surveys at any point during the duration of the contract so the Contractor is fully aware of property owner feedback. If **60**% of all surveys are not completed and returned to the COR by the property owners, the Contractor will not be eligible for the property owner/EPA satisfaction incentive award. These incentives will be earned based on individual assigned groupings of properties (base quantity, options) and not the cumulative totals of properties completed during an entire Construction Season. EPA or the Contractor may contact property owners that fail to submit satisfaction surveys for an explanation of why the survey was not submitted.

2.8 Interim Weekly Report

The Contractor shall provide a weekly report. This report will identify the number of properties excavated, backfilled, sodded and signed-off by the property owners. Also, the weekly report

will reflect all of the non-routine properties that were assigned by the EPA and their current status. These weekly reports shall identify problems encountered and resolved, media contacts, citizen complaints and any other noteworthy issues. The weekly reports shall be submitted each Monday morning before noon, while site work is in progress. The COR and the Contractor shall participate in a weekly conference call and/or meeting. The Contractor shall be responsible for setting-up the weekly call and/or meeting.

2.9 Monthly Property Folder Submission

The Contractor shall submit a monthly report that includes each completed property close-out file finished during the preceding month. The monthly report shall be submitted to the PO and CO by the 15th day of each month during the construction season documenting the work performed for the previous month. Applicable documentation for each closed-out routine and non-routine property assignment shall be submitted in a property file.

At a minimum each property file shall contain the following:

1. Transmittal checklist identifying documents in each individual property file signed and dated by the Contractor's representative. This form shall include a signature block with space for the date of review by the COR or the COR's representative.
2. Brief Executive Summary – 2 to 3 paragraphs or bullets - describes problems/issues encountered during the excavation or during the final property close-out inspection, property owner concerns, unique findings that the EPA should be aware of, and any other relevant information concerning the particular property;
3. Property sketch provided by EPA pursuant to contract specifications;
4. Signed access agreement; including access agreements obtained (required) for crossing onto adjacent properties
5. Pre-excavation digital video clip in MPEG, WMV (Windows Media Video) or SWF Flash format and/or photographs;
6. Digital photographs taken during or immediately after excavation activities;
7. All sampling data including confirmation/verification sampling data/results;
8. Post-excavation digital video clip in MPEG, WMV (Windows Media Video) or SWF Flash Player format and/or photographs;
9. Property Close-out form signed by the Property owner;
10. Documentation (completed EPA close-out checklist);
11. As-built sketch (shall include address, SAID number, legend, Contractor identification, date, final confirmation lead levels, results of any additional characterization sampling performed, and areas exceeding cleanup criteria not remediated; and
12. Sod photographs taken at least 30-days after placement verifying that the sod is growing and healthy..

Other items that should be included in the individual property file, if available or obtained include:

1. Pre-excavation agreement details (if any are made with the property owner);

2. Description of areas and circumstances where soils exceeding cleanup criteria were not remediated; and.
3. Any documents generated that are specific to the individual property, i.e., utility clearances, information from the Douglas County Assessor's office, punch lists, change orders, communication documents, etc.

2.10 Final Report

The Contractor shall submit a draft final report within 30 days of completion of field activities that describes the work completed under this contract as well as any issues which EPA should be made aware of. The Draft Final Report shall address all aspects of the work conducted and shall include two Attachments. Attachment 1 shall include a completed spreadsheet containing all data elements described in Section 2.4.3 for all properties remediated under this contract. Attachment 2 shall contain property files for all properties not previously submitted.

The Final Report shall be submitted within 10 days after receipt of EPA's comments on the Draft Final Report.

3.0 PROPERTY SUBSTITUTION PROVISION

Under certain circumstances, assigned properties may be substituted with replacement properties by EPA, and in some cases, newly designated high priority properties may be added or substituted for assigned properties.

The EPA retains the authority to substitute up to 5% of the originally designated properties for any reason up to 15 days prior to initiating remediation of the final property to be completed under this contract.

3.1 Substitutions due to Access Agreement Issues

For a number of reasons, including refusal of voluntary access by a homeowner, the Contractor may not be able to perform remediation at certain properties. If property remediation cannot be performed due to the inability to secure a signed access agreement by property owner or other issues, the EPA has the ability to replace properties with substitute properties of similar size and complexity at any point during the duration of the contract. The Contractor shall be responsible for achieving property closeouts for any such substitute properties. However, property replacements will be more difficult to justify and provide as the pool of properties grows ever smaller as the project nears completion.

NOTE: Based on previous experiences at the Site, there are relatively few instances where access agreements cannot be obtained. The Contractor shall document all refusals of access to properties. Such "denied access" property documentation shall immediately be brought to the attention of EPA to allow the Agency to pursue property access such as access orders and /or warrants.

3.2 Substitutions due to Identification of Newly Discovered Prioritized Properties

Since properties are continually being identified for remediation through on-going sampling efforts that are not part of this contract, EPA may on occasion identify new properties that must be remediated quickly and therefore are of higher priority than currently assigned properties. The EPA retains the authority to substitute a limited number of originally assigned properties with these newly identified priority properties. Based on previous experience at this Site, there should be very few instances where the EPA will find it necessary to substitute an originally designated property with a newly identified priority property under this contract.

3.3 Substitutions due to Errors or Omissions

On rare occasions a property may be erroneously included on a remediation list when in fact the property does not require remediation and has been previously remediated. This type of listing error and any other type of property listing issue that stems from an oversight caused by the EPA or a previous contractor shall be categorized as an "Error or Omission". The EPA has the authority to substitute properties due to Errors or Omissions at any point during the contract performance. The Contractor shall be responsible for achieving property closeout for substituted properties. The Contractor shall immediately notify the COR if they become aware that a particular property on a remediation list may be the result of an error or omission.

4.0 PROJECT MANAGEMENT

The Performance Based Contracting (PBC) approach requires careful coordination of project activities to ensure that the EPA is kept informed of the project status, existing or potential problems, and any changes that may be required to effectively manage the project and meet the needs of the stakeholders and decision-makers.

The Contractor will be responsible for the following project management activities;

4.1 Project Management Plan (PMP)

The Contractor shall take into account the following when developing their PMP and schedule for conducting remediation activities:

- No fieldwork of any kind shall be performed at any property before 8:00 AM or after 6:00 PM Monday through Friday, or before 9:00 AM or after 6:00 PM Saturday, in order to minimize disturbances to property owners and neighbors, unless specifically directed by the COR.

- No fieldwork of any kind will be permitted at any property on Sundays or the following National Holidays (New Years Day, Easter, Memorial Day, Fourth of July, Labor Day, Thanksgiving and Christmas), unless the Contractor obtains the following:

  1. A signed agreement from the property owner that specifically allows the Contractor to conduct field work on a specific Sunday or a specified National Holiday and adequately substantiates the cause for which the field work is required on such days.

  2. A separate signed agreement received by EPA from all residents of properties (one per living unit) that is directly adjacent to or across the street from the property that

will be undergoing remedial actions, that specifically allows the Contractor to conduct field work on a Sunday or an identified National Holiday. The Contractor shall work with the COR to develop appropriate blank agreement forms to be used for the above purpose and the COR shall approve the form prior to its use.

Since the EPA strongly encourages the Contractor to use local subcontractors/services/laborers (see Section 5.1), the Contractor shall include in their PMP a detailed plan describing the proposed hiring strategy and how local subcontractors/services/laborers are planned to be utilized throughout the duration of the contract.

As part of the PMP, the Contractor shall discuss the format for providing electronic weekly progress reports to the COR. The weekly progress report shall be electronically transmitted to the COR no later than noon (Central time) every Monday, summarizing the previous week's work. The weekly progress reports shall describe work performed and provide weekly and cumulative totals for the numbers of properties excavated, backfilled, restored, and closed-out. If the Contractor is unable to transmit the report by noon, the COR will be notified of the circumstances and alternate arrangements will be made.

The Contractor shall maintain a current version of the PMP, updated to reflect progress towards the achievement of the performance objectives, and delineating proposed actions to accomplish future project milestones. The Contractor shall submit updated versions of the PMP during the duration of the contract as changes to the schedule occur (within 5 calendar days of change).

4.2 Quality Management

The Contractor is responsible for ensuring that the quality of all work and products performed or produced under this contract meets EPA approval. A Quality Assurance Project Plan (QAPP) shall be prepared and approved prior to the performance of field work.

Due to the performance-based nature of this effort, considerable flexibility is afforded to the Contractor to choose and implement a quality control program that will ensure that quality services are always provided. This quality control program shall be detailed in the QAPP.

4.2.1 Construction Quality Assurance Manager

This section describes the activities (observations and tests) that will be performed by the onsite Construction Quality Assurance (CQA) Manager or his designee during construction. Specific activities and test methods to be used to inspect the individual components of the construction project are provided in the following sections and the appendices. The inspection activities in the following sections are minimum requirements. Additional activities and testing may be necessary as the work progresses or as specified in this PWS.

4.2.2 Inspections

Inspection of materials, equipment, construction activities, workmanship and the completed properties shall be performed by qualified personnel familiar with the specific requirements of the PWS.

4.3 Field Sampling Plan (FSP)

The Contractor is responsible for collecting, analyzing and presenting environmental data generated as part of the remedial action. A Field Sampling Plan (FSP) shall be developed by the contractor that addresses sampling issues and complies with the Omaha Lead Sitewide Quality Assurance Plan and Field Sampling Plan developed by EPA.

4.4 Stormwater Run-Off Plan

Compliance with other applicable laws and regulations is required. The Contractor shall develop a Stormwater Run-Off Plan which identifies how stormwater runoff from the staging area, clean stockpile area, and excavated yards will be addressed. The Clean Water Act requires a Stormwater Run-Off Plan for all construction projects.

4.5 Milestone Presentations

Milestone presentations shall be made to the COR at the completion of each significant event (billable periods). These presentations will include, in-depth analysis and lessons learned from that activity and present the proposed approach for the completion of the next milestone.

4.6 Environmental Requirements

The Contractor shall coordinate all response actions with city, county, and state officials as necessary, before performing work. The COR will independently review Contractor work to ensure compliance with contract requirements. A discussion of applicable or relevant and appropriate requirements for this remedial response is presented in the May 13, 2009 Final Record of Decision for the Omaha Lead Site.

4.7 Protection of Private and Public Property

The Contractor shall be responsible for any damage that may be caused to private and public property. Any private or public property damaged or destroyed by the Contractor due to a negligent act shall be promptly repaired or replaced by the Contractor to a condition satisfactory to the owner of the public property (i.e., the City of Omaha) or private property at no cost to EPA, residents, or owners.

4.8 Handling of Sensitive Information and Confidentiality Agreement

All personnel working on this contract shall be responsible for preventing the unauthorized disclosure or release of the property list in Enclosure B and any other document or PWS deliverable containing personal or identifying information.

4.9 Health and Safety Program

The Contractor shall submit and implement a Health and Safety Program, including a written Health and Safety Plan (HASP) for review by the COR, meeting the requirements of the applicable federal, state, and local laws, regulations, and other requirements, including OSHA regulations at 29 CFR 1910.120. The HASP shall contain hospital route maps and be available and centrally located for all personnel to access during emergencies. The HASP shall describe on-going requirements, such as daily safety briefings.

Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with this PWS. Contractor shall comply, and shall secure compliance by its employees, agents, and lower-tier subcontractors, with all applicable health and safety laws, regulations, and other requirements, including without limitation, Federal OSHA and equivalent OSHA state regulations, City and County ordinances and codes, uniform fire codes, and DOT regulations.

The Contractor shall establish and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, and notifying the owners and users of adjacent properties of potential hazards, as necessary. The Contractor shall advise residents to stay away from active remediation areas to the extent possible.

The Contractor shall notify the COR promptly, in writing, if an assertion of non-compliance with the HASP has been made against the Contractor in connection with its performance of the Work.

The Contractor shall be responsible for coordinating the dissemination and exchange of Material Safety Data Sheets and other hazard communication information required to be made available to/or exchanged between/or among employees at the site in accordance with requirements of Federal, State, and local ordinances, laws or regulations.

The COR has the right to remove or bar from the site any employee of the Contractor or subcontractors for failure to comply with site health and safety requirements.

The COR has the authority to suspend any and all work activities, at the Contractor's expense, if the COR determines that unsafe practices are being employed at any time.

4.10 Regulatory Involvement

The Contractor shall address all inquiries/concerns from EPA and other state and local regulatory agencies (e.g., organizing discussions concerning Site response objectives and completion requirements, scheduling issues, performance and quality concerns) as required.

4.11 Community Involvement and Communication

The Contractor shall participate in or perform limited community involvement activities involving the project at the direction of the COR. EPA will attempt to minimize any community

involvement responsibilities of the Contractor. The COR shall be notified, to the extent possible, in advance of any media contact and in any case be immediately informed following any media contact and provided with details of the information requested and provided. The Contractor shall support the EPA in performing community relations activities directly associated with remedial actions including:

(1) Managing the work in a manner to minimize any disruption to residents;
(2) Providing information to residents about Contractor operations and schedules; and,
(3) Identifying, documenting, and responding to questions, concerns and complaints.

The Contractor shall have primary responsibility for addressing problems and complaints submitted by property owners and the general community within the scope of the PWS. The Contractor shall provide to EPA for review and approval a Customer Satisfaction Plan (CSP) which identifies how complaints and comments about remedial action activities will be addressed. The CSP will identify Contractor points of contact and responsibilities and describe all pertinent information to be collected about each individual complaint and its resolution.

4.12 Expertise and Necessary Personnel and Qualifications

See Section 2.1 for minimum qualifications for key personnel. Some property owners may not be English-speaking or able to read documents/forms/surveys written in English. Therefore, the Contractor shall arrange, as necessary, to have all appropriate information (written or verbal) translated into a language that the property owner and residents can understand. However, all non-English documents submitted to the COR (e.g. access agreements) shall be accompanied by an English version.

5.0 ADDITIONAL REQUIREMENTS AND CONTRACT INFORMATION

5.1 Use of Local Subcontractors/Laborers/Goods and Services

The Contractor is encouraged to use local area subcontractors/employees/goods and services as defined in contract documents. Based on the level of local subcontracting/hiring/purchasing of goods and services, the Contractor may earn an incentive payment above the firm-fixed contract price.

5.2 EPA Furnished Resources

The EPA will provide the following resources to the Contractor:

- Property records, reports, data, and information as available (e.g., quadrant sketches, paper copy, CD),
- Access to EPA policies and guidance documents.

5.3 Deliverables

The Contractor shall submit the deliverables required by this PWS in accordance with the schedule identified below.

Deliverable	Description	Due Date(s)
Final Project Management Plan (PMP)	PWS, Section 4.1 – detailed description of how the project is to be managed	15 days after Contract Award
PMP revisions	PWS, Section 4.1	5 calendar days after change
Final Quality Assurance Project Plan (QAPP)	PWS, Section 4.2 – how the Contractor will assure quality of all work and products; Consistent with the Site wide Sampling and Analysis Plan for the Omaha Lead Site	20 days after Contract Award
Final Field Sampling Plan (FSP)	PWS Section 4.3 and Consistent with EPA Superfund Lead-Contaminated Sites Handbook (OSWER 9285.7-50, August 2003); Consistent with the Site wide Sampling and Analysis Plan for the Omaha Lead Site	20 days after Contract Award
Stormwater Run-Off Plan	PWS Section 4.4 and compliant with requirements set forth in the Clean Water Act	20 days after Contract Award
Final Health and Safety Plan (HASP)	PWS, Section 4.9 -- meeting the requirements of all applicable federal, state, and local laws, regulations, and other requirements, including OSHA regulations at 29 CFR 1910.120.	20 days after Contract Award
Customer Satisfaction Plan (CSP)	PWS Section 4.11 -- Detailed description of how complaints will be handled from receipt of complaint to resolution.	30 days after Contract Award
Interim Weekly Report	PWS, Section 2.7 - Status update of all aspects of contract work	Monday before noon while field work is on-going.
Monthly Report	PWS, Section 2.8	15th of each month, for the proceeding month, while field work is on-going
Daily Oral Reports	Updates of anticipated work, problems encountered, etc.	Daily while field work is on-going
Weekly Meetings	Updates on activities completed and planned and discussions about work efforts	Weekly while field work is on-going
Pre-Remedial Package for each Property	Information regarding ownership, access attempts, access agreements, special considerations, etc.	Available for COR review prior to any remediation work on a property
Remedial Package for each Property (Property Files)	For each property -– PWS Section 2.9 -- Infformation including, but not limited to, ownership, access attempts and agreement,	15th of the month after completion – submitted as part of the Monthly Report

Deliverable	Description	Due Date(s)
	pre and post excavation lead concentrations, pre and post excavation property sketches, identification of any contaminated areas greater than 4 square feet remaining at completion, property owner sign-off, owner survey and EPA COR signature	
Milestone Presentations	Oral presentation describing efforts, problems encountered, recommended solutions,	After completion of the first 25 properties each year and when requested by the COR
Final Report	PWS, Section 2.10	30 days after completion of field work
Justification for Receipt of Incentive Awards	Report that provides documentation to support award of contract incentive	30 days after completion of field work
Diesel Chemical and Particulate Emissions Report	Monthly report of equipment usage and the decreased emissions resulting from retro-fitting diesel-powered construction equipment.	15th day of each month. For the preceding month while field work is on-going

ENCLOSURE A
SITE INFORMATION

A.1 SITE NAME, LOCATION, AND DESCRIPTION

The Omaha Lead Site (OLS [CERCLIS ID # NESFN0703481]) includes contaminated surface soils present at residential properties, child-care facilities, and other residential-type properties in the city of Omaha, Nebraska, that have been contaminated as a result of historic air emissions from lead smelting/refining operations. The Omaha Lead Site encompasses the eastern portion of the greater metropolitan area in Omaha, Nebraska. The site is centered around downtown Omaha, Nebraska, where two former lead processing facilities operated. American Smelting and Refining Company, Inc., (Asarco) operated a lead refinery at 500 Douglas Street in Omaha, Nebraska, for over 125 years. The Gould, Inc. (Gould) lead battery recycling plant was located at 555 Farnam Street. Both facilities released lead-containing particulates to the atmosphere from their smokestacks which were deposited on surrounding residential properties.

The OLS includes only those residential properties where the U.S. Environmental Protection Agency (EPA) determines through soil sampling that soil lead levels represent an unacceptable risk to human health. Residential properties where soil sampling indicates that soil lead concentrations are below a level of concern are not considered part of the Site. All non-residential properties are also excluded from the defined Site. The EPA has established a 27.0 square mile Final Focus Area where soil sampling of residential properties is being conducted to measure the impact of the former smelting/refining facilities on soil lead levels at individual properties. The results of the soil sampling determine whether the individual property is included within the defined Omaha Lead Site. For convenience, the perimeter of the Final Focus Area will be referred to as the Site boundary. The Site is actually comprised of the individual properties that have been determined to be eligible for remedial action on the basis of soil sampling.

The EPA is the lead agency for this project. The Nebraska Department of Environmental Quality (NDEQ) serves as the support agency to EPA. The cleanup of residential properties at the OLS is being funded from the Superfund Trust under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended. The EP is involved in discussions with Potentially Responsible Parties for the site (PRPs) seeking their participation in funding and/or performance of the selected remedy.

A.2 SITE HISTORY AND ENFORCEMENT ACTIVITIES

Site History

The Asarco facility conducted lead smelting and refining operations at the 500 Douglas Street facility from the early 1870s until 1997. The ASARCO facility was located on approximately 23 acres on the west bank of the Missouri River in downtown Omaha. Aaron Ferer and Sons opened and operated a secondary lead smelter and lead battery recycling plant from the early 1950s until 1963. In 1963, the facility was purchased by Gould, who operated until it closed in 1982. During the operational period of these facilities, lead-contaminated particulates were

emitted into the atmosphere through smokestacks and other processes. The pollutants were transported downwind in various directions and deposited on the ground surface.

The Douglas County Health Department (DCHD) performed monitoring of the ambient air quality around the ASARCO facility beginning in 1984. This air monitoring routinely measured ambient lead concentrations exceeding the 0.15 micrograms per cubic meter ($\mu g/m^3$) ambient standard for lead. The highest recorded quarterly average measured in air was 6.57 $\mu g/m^3$.

The DCHD has compiled statistics on the results of blood lead screening of children less than seven years of age for more than 25 years. Blood lead screening of children living in zip codes located east of 45th Street nearest to the former lead processing facilities have consistently exceeded the 10 micrograms per deciliter (µg/dl) health-based threshold more frequently than children living elsewhere in the county.

In 1998, the Omaha City Council requested assistance from the EPA to address the high frequency of children found with elevated blood lead levels by the DCHD. At that time, the EPA began investigating the lead contamination in the Omaha area under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

The EPA began sampling residential properties and properties that were used to provide licensed child-care services in March 1999. The EPA initiated a series of response actions under CERCLA removal authority in August 1999 to address soil exceeding 400 ppm at child care facilities and residences where children with elevated blood lead levels resided. In August 2002, a second removal action was initiated to address soil at other residential properties exceeding 2,500 ppm. This action level was reduced to 1,200 ppm in November 2003. In March 2004, these two removal actions were combined into a single response action.

Response action was initiated under CERCLA Removal authority in August 1999 through an Inter-Agency Agreement with the U.S. Army Corps of Engineers. From 1999 through 2002, excavation and soil replacement was completed by the Corps of Engineers at 257 properties. EPA began directly implementing the removal action in 2002, and completed excavation and soil replacement at a total of 144 properties through 2003. EPA and the Corps of Engineers combined to complete a total of 310 properties in 2004. Removal action was completed by EPA and the Corps of Engineers at 805 properties in 2005 as work was transitioning to CERCLA Remedial authority.

The OLS was proposed for the EPA National Priorities List (NPL) on February 24, 2002. The proposed NPL listing became final on April 30, 2003. The general boundaries of the Site were estimated at the time of NPL listing by establishing a perimeter surrounding the properties that had been determined to exceed 1,200 parts per million (ppm) lead at that time. The area enclosed by this perimeter was approximately 8,840 acres (13.8 square miles), with an estimated population of 65,863 (based upon 1990 U.S. Census information). Twenty public schools were located within this area. On the basis of soil sampling performed subsequent to NPL listing, a focus area was established where EPA targeted additional soil sampling at residential properties to characterize the impact from the former lead processing facilities. The original focus area

boundary encompassed an area of approximately 12,098 acres (18.9 square miles) bounded by Ames Avenue to the north, L Street to the south, 45th Street to the west, and the Missouri River to the east.

Between March 1999 and January 2004, surface soil samples were collected from 15,012 residential properties. EPA finalized an initial Remedial Investigation (RI) at the Site in 2004 which presented the results of previous site investigations. During data collection for the 2004 RI, the boundaries of the focus area were expanded to include additional areas where elevated soil lead levels were consistently found. The 2004 expanded focus area added portions of areas north to Redick Avenue, west to 52nd Street, and south to Harrison Street, encompassing a total area of approximately 16,465 acres (25.7) square miles. The 2004 RI estimated that 16,000 residential properties may exceed 400 ppm lead, that 5,600 properties may exceed 800 ppm lead, and that 2,800 properties may exceed 1,200 ppm lead.

EPA issued an Interim Record of Decision (Interim ROD) for the OLS on December 15, 2004, based upon information in the Administrative Record for the Site, including the Remedial Investigation and Feasibility Study released in 2004. The Interim ROD expanded the scope of the ongoing response action to include excavation and replacement of residential soils exceeding 800 ppm, and continued removal and replacement of soils exceeding 400 ppm at child care facilities and residences where children with elevated blood lead levels reside. The selected interim remedy added new elements to the response action, including stabilization of deteriorating exterior lead-based paint in cases where the continued effectiveness of the soil response is threatened, high efficiency interior dust cleaning at eligible properties, health education, and participation in a comprehensive remedy with other agencies and organizations to addresses all identified lead exposure sources in the community.

In March 2005, the scope of the ongoing removal action was amended to include all elements of the Interim Record of Decision, which continued until work commenced under CERCLA Remedial authority. Removal response was discontinued when remedial response commenced. Proceeding under CERCLA Remedial authority, EPA completed soil excavation and replacement (remediation) at 255 properties in 2005 for a total of 1060 properties completed in 2005 under combined removal and remedial authority. During 2006, soil remediation was completed by EPA contractors at 1044 properties. Soil remediation was completed by EPA contractors at an additional 1,000 properties in 2007, 800 properties in 2008, and 1021 properties in 2009. Through the close of the 2009 construction season, Soil excavation and replacement under CERCLA Removal and Remedial authority has been completed at 5,636 residential properties at the OLS.

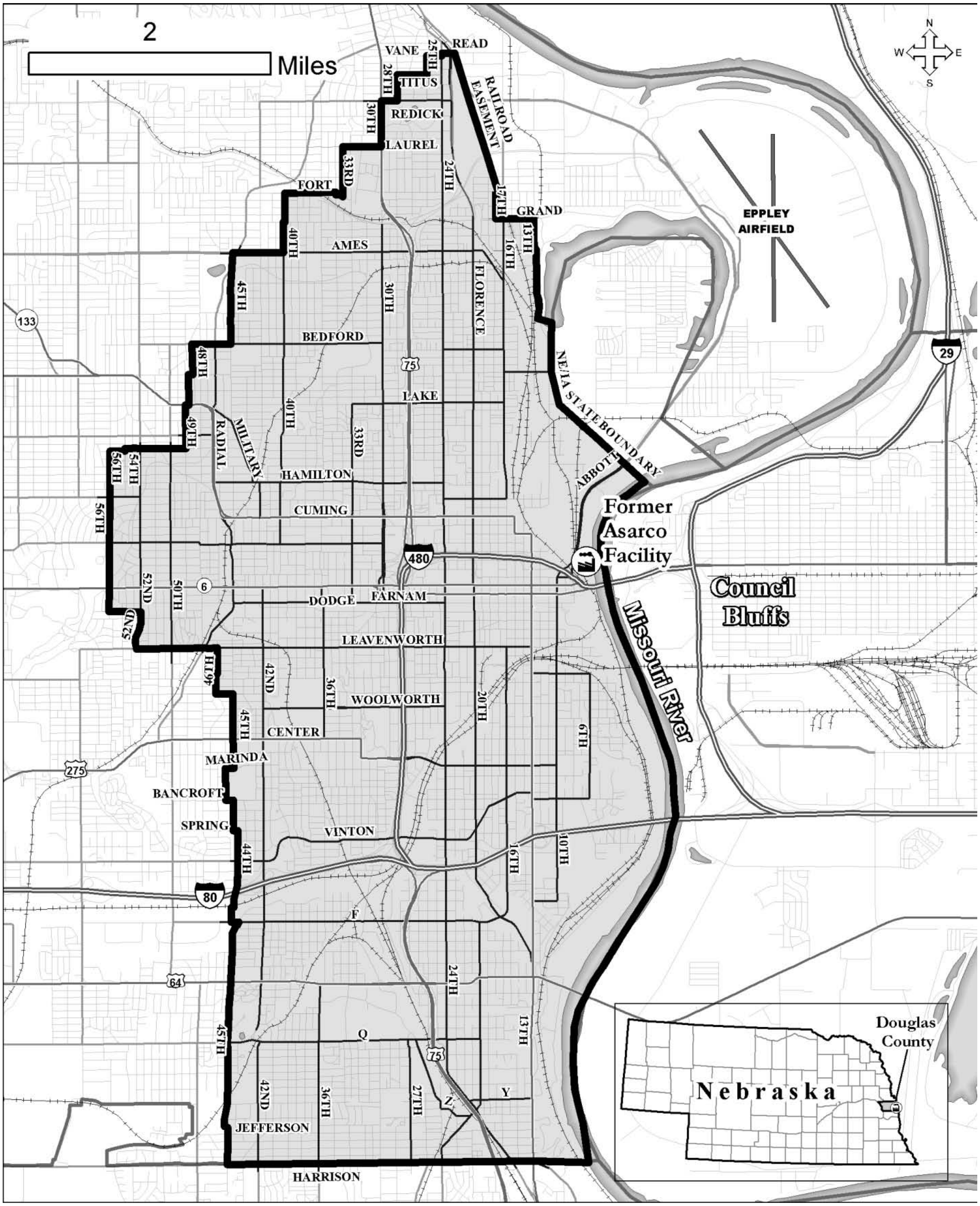
Stabilization of deteriorating exterior lead-based paint in accordance with the interim remedy commenced in 2007 through a cooperative agreement with the City of Omaha Lead Hazard Control Program. Stabilization was completed at 18 properties in 2007. Under both EPA and City of Omaha contacts, stabilization of deteriorating exterior lead-based paint was completed at 1,199 properties in 2008, and at 1,432 properties in 2009.

During implementation of the interim remedy, the EPA continued to perform soil sampling to support a final remedy for the Omaha Lead Site. In October, 2008, EPA released a Final

Remedial Investigation, which presented results of all site investigations including soil sampling performed at more than 35,000 residential properties. Based on the 2008 data set, EPA established the Final Focus Area for the Site, which defines the residential properties that are targeted for sampling. This area is generally bounded by Read Street to the North, 56th Street to the west, Harrison Street (Sarpy County line) to the south, and the Missouri River to the east, and encompasses 17,290 acres (27.0 square miles). The 2000 U.S. Census data for this area shows a total population of 125,650, including 14,117 children less than 7 years of age. Current information from the Douglas County Assessors Office indicates that 39, 783 residential properties are located within the Final Focus Area. Through close of the 2009 construction season, soil sampling had been completed at 36,306 residential and residential-type properties at the OLS.

A Final Record of Decision for the Omaha Lead Site was issued by EPA May 19, 2009. The Final Record of Decision retained the elements of the Interim Record of Decision, and established a final action level of 400 ppm for lead in residential soils at the OLS. Lowering the soil lead action level to 400 ppm resulted in an estimated 9,966 additional properties eligible for soil remedation. A total of 14,581 properties were estimated to be eligible for soil remediation in the Final OLS Record of Decision, including those previously remediated. Soil remediation has been completed at 5,636 properties through the close of the 2009 construction season..

Figure 1 depicts the general boundaries of the final focus area. Portions of the final focus area extend to 56th Street to the west, the Missouri River to the east (excluding the Omaha central business district), Read Street to the north, and Harrison Street to the south. These boundaries define a general area where the majority of the impacted properties are located. The actual site, however, includes any property where soil lead levels exceed EPA criteria for initiating remedial action. The National Priorities List Site is defined as the collection of individual properties that exceed the established action levels, defined on a property-to-property basis, and is not defined by a discrete boundary.



2
Miles
Former
Asarco
Facility
Council
Bluffs
Missouri River
EPPLEY
AIRFIELD
NE/IA STATE BOUNDARY
RAILROAD
EASEMENT
Nebraska
Douglas
County

ENCLOSURE B
SITE BOUNDARIES AND LISTING OF PROPERTIES TYPICAL FOR OMAHA LEAD SITE

A list of properties typical of those to be remediated under this contract will be made available at the pre-bid conference scheduled for . Generally, the homes to be addressed are older single and multi-family dwellings constructed during the mid- to later 1900's. Properties are in various states of repair and range from severely deteriorated to immaculately maintained. Most lot sizes are less than one-quarter acre. An example of previously remediated property will be provided at the scheduled pre-bid conference.

ENCLOSURE C
PROJECT DELIVERABLES

1. Project Management Plan
2. Quality Assurance Project Plan
3. Field Sampling Plan
4. Health and Safety Plan
5. Customer Satisfaction Plan
6. Milestone Presentations
7. Pre-Remedial Package for each Property
8. Remedial Package for each Property
9. Weekly Interim Reports
10. Monthly Reports
11. Final Report
12. Contractor Close-Out Forms
13. Justification of Receipts/Records for Incentive Awards
14. Storm Water Run-off Plan

ENCLOSURE D
RECORD OF DECISION

ENCLOSURE E
Definitions

Drip Zones - Lead-contaminated soils are frequently found within the drip zone of houses. In accordance with the Superfund Lead-Contaminated Residential Sites Handbook, a four-point composite sample, is typically, collected from the drip zone of each residential property.

The composite sample (taken from any size house) should consist of a minimum of four aliquots collected within 6 and 30 inches from the exterior walls of the house. Each aliquot should generally be collected from the midpoint of each side of the house.

All drip zones that have been deemed as contaminated will be excavated to a minimum of 30 inches away from the foundation of the home. It shall be the Contractor's responsibility to define the width of the drip zone from the foundation wall, if greater than 30 inches. The only exceptions will be is if it is not technically feasible to excavate that far away from the foundation; for example, a sidewalk or other permanent cap or if excavation or continued excavation would threaten the structural integrity of the foundation.

Residential properties - Are defined as any area with high accessibility to sensitive populations, and includes properties containing single-and multi-family dwellings, apartment complexes, vacant lots in residential areas, schools, day-care centers, community centers, playgrounds, parks, green ways, and any other areas where children may be exposed to site-related contaminated media.

Sensitive populations - Are defined as young children (those under 7 years of age, who are most vulnerable to lead poisoning), nursing and pregnant women. Focus is put on children less than 7 years old because blood lead levels typically peak in this age range. Unfortunately, this age range is also where children are most vulnerable to the adverse cognitive effects of lead. Pregnant women are included due to the effects of lead on the fetus

Gravel driveways - Fine-grained driveway material may present a direct exposure pathway to persons working or engaged in recreational activities on driveways. Concentrations may also contribute to the transport of contaminants throughout the community. If a gravel driveway is in a contaminated area and soil is visible, the contaminated area shall be excavated. The COR shall be notified each time this situation occurs.

Crawl Spaces and Exterior Decks - Crawl space and exterior deck sampling is recommended if the crawl space is accessible to children or pets. Pets have been found to access these spaces and move significant amounts of fine dust containing elevated lead levels into the child's living areas. These types of areas should be excavation and restored if reasonably accessible by site workers.

Cap - Paved surfaces such as asphalt/concrete driveways, patios, alleys, and parking lots should, in most cases, not be sampled. Samples should be collected in other locations depending upon the potential for exposure or recontamination. For example, sampling would be appropriate in accessible areas under porches and crawl spaces. In cases where excessive

personal items must be moved to accommodate remediation, EPA will be consulted if those responsible (homeowner/resident) are not able or willing to move items to allow for remediation. EPA may elect to provide a substitute property where reasonable arrangement cannot be reached. Incomplete barriers (such as rock or gravel) or minimal use areas (such as areas under porches), which exceed the applicable clean-up level, should be cleaned up to the extent practicable.

Empty lots - If zoned residential and the lot contains soil with lead concentrations greater than the EPA action level, empty lots are eligible and should be remediated. Examples include empty lots between two houses and groups of empty lots that are near improved lots.

Contamination Remaining after Completion - Every attempt should be made to clean up the entire yard. However, any residential yard areas without permanent barriers that the resident requests to leave unremediated, should be sampled separately after receiving EPA concurrence to determine if the selected clean-up level is exceeded. If the clean-up level is exceeded and the owner refuses to allow the remediation of that portion of the yard, then records will be developed to document that the remediation was less than complete. Any area that is greater than four square feet that meets the criteria above should be documented on the as-built drawing and information uploaded into the EPA database.

As-Built Drawing – The drawing will contain the following information: final lead confirmation levels, areas with contamination remaining (above the action level) following remediation, property address, owner's name, BVID/SAID number, legend, Contractor identification, date. The drawing should be 8 ½ x 11 inches, legible, with a north arrow.